

WHAT IS CLAIMED IS:

1. A method for preserving configuration data during firmware modification, said method comprising:
  - 5 a) extracting configuration data from an existing firmware structure in a firmware device;
  - b) storing said configuration data;
  - c) downloading a new firmware structure to said device; and
  - d) restoring said configuration data to said new firmware structure in said firmware device.
- 10 2. A method as described in claim 1 wherein said storing takes place on a web server.
3. A method as described in claim 1 wherein said downloading is accomplished via a link between a download computing device and said firmware device.
- 15 4. A method for preserving configuration data during firmware modification, said method comprising:
  - a) extracting configuration data from an existing firmware structure in a firmware device wherein said extracting is accomplished over a network connection;
  - b) storing said configuration data on a web server;
  - 20 c) downloading a new firmware structure from a download computing device to said firmware device, wherein said downloading is accomplished via a direct connection; and
  - d) restoring said configuration data to said new firmware structure in said device.

5. A method as described in claim 4 wherein said direct link is a serial link.
6. A method as described in claim 4 wherein said restoring also comprises installing additional  
5 configuration data
7. A method for preserving configuration data during firmware modification, said method comprising:
- a) uploading configuration data from an existing firmware structure in a firmware device  
10 wherein said uploading is accomplished over a network connection;
- b) storing said configuration data;
- c) downloading a new firmware structure from a download computing device to said  
firmware device thereby replacing said existing firmware structure;
- d) converting said configuration data to a format compatible with said new firmware  
15 structure and
- e) installing said converted configuration data to said new firmware structure in said device.
8. A method as described in claim 7 wherein said storing is accomplished on a web server.
- 20 9. A method as described in claim 7 wherein said storing is accomplished on a download  
computing device.

10. A method as described in claim 7 wherein said storing is accomplished on said firmware device.

11. A method as described in claim 7 wherein said downloading is accomplished over a serial link.

12. A method as described in claim 7 wherein said downloading and said installing are accomplished in a single step.

13. A system for preserving configuration data during firmware modification, said method comprising:

a) a firmware device comprising an upgradable firmware structure and configuration data;

b) a web-based data management utility residing on a server;

c) a download computing device;

d) a network connection connecting said firmware device, said download computing device and said web-based management utility; and

e) a direct connection between said firmware device and said download computing device, wherein said management utility may recover said configuration data from said firmware device and store said configuration data on said server while said firmware structure is upgraded to a new firmware structure and wherein said configuration data may be installed to said new firmware structure after upgrading thereby preserving said configuration data.

14. A system as described in claim 13 wherein said configuration data is converted to a new  
format before installation on said new firmware structure.

15. A system as described in claim 13 wherein said configuration data is compiled with

5 additional configuration information before installation on said new firmware structure.

16. A system as described in claim 15 wherein said additional configuration information is  
obtained by querying network devices.

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